APPENDIX C

DICKSON COUNTY FACILITIES

(37 Pages)

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DICKSON COUNTY FACILITIES

The following documents were reviewed to gain an understanding of events in Dickson County. The documents are described by location in chronological order. The source of each document is provided at the end of each description followed by the file from which the document was obtained in parentheses.

BRAD RAGAN TIRE AND APPLIANCE 110 VILLA CIRCLE DICKSON, TN 37055

February 9, 1993 The Hazardous Waste Notification (HWN) and Hazardous Waste Stream Report (HWSR) stated that petroleum naphtha (mineral solvents), oil, water, and solids were generated during degreasing operations. Safety-Kleen Corp., a treatment, storage and disposal facility (TSDF), transported approximately 96 kilograms (kg) of waste off site annually for recycling through fractional distillation. Source: TDEC DSWM HWN and HWSR, February 9, 1993.

January 30, 1996 Letter from Brad Ragan, Inc., informing DSWM that Brad Ragan Tire and Appliance stores generated no hazardous waste in 1995. Brad Ragan, Inc., stated that due to changes in Tennessee law, the waste oil and antifreeze generated at Brad Ragan Tire and Appliance stores were no longer classified as hazardous wastes. According to the letter, these products continued to be recycled. The parts cleaner solution used at the site was changed to a nonsolvent-based product. Source: Letter from R.D. Aigner, Brad Ragan, Inc., January 25, 1996.

Attached to Mr. Ragan's letter were the Conditional Exempt Small Quantity Generator (CESQG) 1995 Annual Reports of Hazardous Waste Activities (ARHWA), HWN, and HWSR. These reports stated that waste mineral spirits (petroleum naphtha and oil-water solids) and waste antifreeze (wastewater, waste ethylene glycol, waste propylene glycol, waste diethylene glycol, and waste phosphoric acid) were generated until June 1, 1995, and transported off site by a TSDF. Source: TDEC DSWM CESQG 1995 ARHWA, HWN and HWSR, January 30, 1996.

CARL'S BODY SHOP/CARL'S CERTIFIED COLLISION CENTER, INC. 525 HIGHWAY 46 DICKSON, TN 37055

August 5, 1986 HWN indicated that the facility has been a small quantity generator (SQG) of waste paint thinner since 1978. The average annual amount of hazardous waste generated was 1,227 kg, which was transported off site by a TSDF. Source: TDHE DSWM HHWN, August 5, 1986.

January 2, 1991 HWN Summary noted that Carl's Body Shop generated waste paint thirrier continuously since 1978. The average annual amount of hazardous waste generated was 1,227 kg. The waste was transported off site by a TSDF for fuel blending. Source: TDHE DSWM HWN Summary, January 2, 1991.

- January 26, 1993 HWSR and off-site shipping report stated that three shipments of hazardous waste were generated and transported off site by TSDFs. One 400 kg shipment of mixed acetone, methyl ethyl ketone, methyl isobutyl ketone, toluene, and paint sludge, and two 51 kg shipments of mineral spirits, for a total of 502 kg of waste, shipped off site. Facility now called "Carl's Certified Collision Center, Inc." Source: TDEC DSWM HWSR, January 26, 1993.
- March 16, 1994

 1993 Offsite Shipping Report indicates that Carl's Collision Center, Inc., had three off-site shipments of hazardous wastes, including one 400-kg shipment of waste paint-related material and two 51-kg shipments of waste mineral spirits. Source: Fax from Gardner Engineering, 1993 Offsite Shipping Report, March 7, 1994.
- March 1, 1996

 Two HWSRs indicated that Carl's Collision Center, Inc., produced three waste streams: (1) waste paint thinner/still bottoms; (2) waste mineral spirits; and (3) dirty thinner. The average annual amount of waste paint and thinner still bottoms The average annual amount of waste mineral spirits generated was 500 kg, which was transported off site by a TSDF. The average annual amount of dirty thinner generated was 4,600 kg, which was recycled on site in a distillation still. Source: TDEC DSWM HWN, March 1, 1996.
- March 1, 1999 Four HWSRs indicated that an annual average of 9,000 kg of dirty paint thinner was recycled on site. The reports also indicate that an average annual volume of 200 kg of waste paint/still bottoms and 500 kg of waste mineral spirits is produced at the site. The following hazardous wastes were generated and transported off site by mineral spirits, and (3) 15 kg of spent brake fluid. Source: TDEC DSWM HWN, March 1,1999.

CLASSIC CLEANERS 112 SYLVIS STREET DICKSON, TN 37055

- February 27, 1991 HWN and HWSR stated that Classic Cleaners is a generator of hazardous waste, but does not list the facility as a SQG. The notification states that an annual average of about 858 kg of waste tetrachloroethene (PCE) generated by dry cleaning processes. During the reporting year 1990, 606.82 kg of PCE were generated at the site, and 643.18 kg of PCE were transported off site by a TSDF. Source: TDEC DSWM HWN, February 27, 1991.
- February 27, 1995 HWN and HWSR stated that the facility is not considered a generator of hazardous waste. Physical location address listed on HWSR changed from 101 Center Ave. to 112 Sylvis Street, Dickson, TN. However, waste PCE was generated during dry cleaning activities. Source: TDEC DSWM HWN and HWSR, February 27, 1995.
- March 25, 1998 Letter from TDEC to Classic Cleaners stated that Classic Cleaners had failed to submit to DSWM an annual report for 1997. Source: Bobby W. Morrison, Manager, Waste Activity Audit, TDEC DSWM, March 25, 1998.

March 4, 1999

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HWN and HWSR stated that the facility is an SQG. 380 kg of waste PCE was generated and transported off site by a TSDF during the reporting year 1998. Source: TDEC DSWM HWN, HWSR, and 1998 Offsite Shipping Report, March 4, 1999.

May 26, 1999

Letter from TDEC DSWM to Classic Cleaners stated that a review of the 1998 annual report for Classic Cleaners was conducted and "deficiencies" were found; the deficiencies needed to be corrected within 30 days. The deficiency in the annual report was an incorrect recording of the amount in temporary on-site storage on the first day of the year. Source: Letter from Dennis Woodson, Environmental Specialist, Waste Activity Audit, TDEC DSWM, May 26, 1999.

COMMUNITY NEWSPAPER, INC.

May 23, 1984

DSWM Compliance Monitoring and Enforcement Activity Report (CMEAR) stating that notifiable hazardous wastes are not generated by Community Newspaper, Inc. Source: TDEC DSWM CMEAR, May 23, 1984.

DICKSON ELECTRIC DEPT. P.O. BOX 627 EAST CHESTNUT ST. DICKSON, TN 37055

September 8, 1995

HWN and HWSR indicated that Dickson Electric was an SQG. Notification states that a liquid waste of old nickel (Ni) and cadmium (Cd) batteries with sulfuric acid was the only hazardous waste generated. The batteries were "reclaimed" for Ni and Cd content. Source: TDEC DSWM HWN and HWSR, September 8, 1995 (DSWM).

Attached to this report was a letter from TDEC DSWM concerning Dickson Electrics EPA ID Number, which was issued as TND 98-778-1739. Source: Letter from Bobby W. Morrison, Manager, Waste Activity Audit, TDEC DSWM, September 13, 1995.

March 5, 1996

HWN, HWSR, and 1995 Offsite Shipping Report indicated that Ni and Cd reclamation of used batteries occurred at the site and approximately 307 kg of a liquid containing Ni, Cd, and sulfuric acid was transported off site by a TSDF. Source: TDEC DSWM HWN, HWSR, and 1995 Offsite Shipping Report, March 5, 1996.

DICKSON PRINTING EAST COLLEGE DICKSON, TN 37055

May 22, 1984

DSWM CMEAR stated that notifiable hazardous wastes are not generated by Dickson Printing. Source: TDEC DSWM Compliance and Monitoring Activity Report, May 22, 1984.

DISSER ENTERPRISES, INC. HWY. 46 DICKSON, TN 37055

February 28, 1989 HWN Summary and HWSR stated the facility was an SQG since 1987. Waste PCE and waste PCE filters are generated during dry cleaning activities and transported off site by Safety-Kleen, a TSDF. Source: TDHE DSWM HWN Summary and HWSR, February 28, 1989.

February 25, 1999 HWN, HWSR, and 1998 Offsite Shipping Report stated the facility is not a generator of hazardous waste (it is considered special status); however, 218 kg of PCE waste filters and 336 kg of PCE waste sludge were generated and transported off site by a TSDF in 1998. Source: TDEC DSWM HWN, February 25, 1999.

EBBTIDE CORPORATION 2545 JONES CREEK ROAD WHITE BLUFF, TN

July 25, 1994

Draft Site Inspection Prioritization report to the U.S. EPA indicated that Ebbtide Corporation (Ebbtide), located in White Bluff, Tennessee, manufactured fiberglass boats. Acetone, used on site as an industrial cleaner, was collected in small closed containers and transferred to drums that were stored outside. Past waste disposal practices involved dumping the cleaning process chemicals behind the main building and allowing the acetone to evaporate. A state-supervised cleanup was performed in 1981. Material was excavated and disposed of at the Dickson County Landfill.

The report states that a site inspection performed in March 1994 by the Tennessee Department of Health and Environment (TDHE) determined "no indication of other on-site disposal areas." Three composite soil samples collected by TDHE indicated the presence of ethyl benzene, methylene chloride, toluene, and heavy metals. The file review indicated "no further action was taken at the site." During an April 14, 1994, site visit, the U.S. EPA contractor detected a "foul" solvent odor.

The preliminary Hazard Ranking System (HRS) score was 16.13, assuming groundwater, surface water, soil exposure, and air pathways. A private and municipal well search indicated that groundwater was used as a drinking water source. No wells were sampled. The report determined that "due to the low target values and pathway scores, no further action is recommended for the Ebbtide Corporation site." Source: Site Inspection Prioritization report by Black and Veatch Waste Science, Inc., July 25, 1994.

December 15, 1994

Internal TDEC memo to Division of Superfund file stating that Ebbtide began operations in 1994 and was still active at the time of the memo. Wastes located at the site included acetone, resin, and paint. Drummed wastes from the site were taken to the Dickson County landfill; however, in 1982, the Division of Solid Waste Management (DSWM) indicated that wastes were transported off site for recycling. The memo stated that drummed wastes were taken by trailer load every week to the landfill for a period of 3 to 4 years. The drum contents were suspected of being solvents used to hardened fiberglass. A DSWM file apparently existed for activities until 1987. That file reportedly described the excavation and cleanup activities on site, but stated only a portion of the "dump" was removed and the remaining waste

was "landfilled" on site. There are no records to verify this activity. groundwater samples were known to have been collected. The memo concluded that "based upon the limited amount of information available, concerns about possible on-site contamination and/or disposal exist. Since Ebbtide is an active facility regulated by the Division of Solid Waste and Air Pollution, No Further Action by State Superfund is required at this time." A memo called a "reference" was attached to the original memo (June 4, 1992, Bill Krispin, DSWM, Tennessee Department of Public Health) with the subject "Geologic evaluation of a landfill operated by Ebbtide in Dickson County." The memo indicated that the landfill was 1 acre. The memo recommended additional testing due to possible future site use or proper site closure. Another attached reference (November 17, 1982, letter from Bob Gardner, DSWM to John Singleton, Ebbtide) stated that the "open-dump behind your plant" had been "properly closed consistent with the recommendations of the June 4 memo. Another reference attached to the Division of Superfund (DSF) memo indicated that the Tennessee Emergency Management Agency responded to a December 7, 1994, fire, "in a pit dump adjacent to Ebbtide plant." Memo to file by Nancy Frazier of DSF to file, approved by Brenda Apple (DSF) on December 16, 1994.

FIBERGLASS WORKS, INC./ARIES FIBERGLASS WORKS 2111 HIGHWAY 47 EAST DICKSON, TN 37055

Letter from Tennessee Department of Health and Environment (TDHE) to Fiberglass Works concerning the hazardous waste generator, small quantity exclusion inspection conducted on November 13, 1986. The report indicated that there were no violations at the facility. Source: Letter from David Wall, TDHE DSWM, to Billy Williams, Fiberglass Works, Inc., November 18, 1986.
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- January 9, 1987 Letter to the Dickson Herald from TDHE requesting the printing of a Public Notice for January 16, 1987, or sometime after, regarding the decision to grant a variance to Aries Fiberglass Works, Inc., Dickson. Source: Letter from Barbara Blanton, TDHE DSWM, January 9, 1987.
- January 23, 1987 HWSR stated that spent acetone generated at the facility for 3 to 4 years was being recovered. Source: TDHE DSWM HWSR, January 23, 1987.
- February 16, 1987 Public Notice from TDHE of the tentative decision to grant the spent acetone generated by Aries Fiberglass Works a variance from classification as a waste because of the use of on-site acetone recovery. Source: Public Notice from TDHE DSWM Regional Office, February 16, 1987.
- February 15, 1989 HWSR stated that Aries Fiberglass actively recovered acetone on site, and a variance was granted in 1987. Source: TDHE DSWM HWSR, February 15, 1989.
- February 7, 1996 HWN and HWSR stated that acetone generation at the facility ceased on June 30, 1995. Source: TDEC DSWM HWN and HWSR, February 7, 1996.

GAD-A-BOUT CAMPERS HWY 70 RT. 2 WHITE BLUFF, TN 37187

July 18, 1986

TDEC DSWM CMEAR stated that the facility was out of business and that manufacturing never occurred at the location. Source: TDHE DSWM CMEAR, July 18, 1986.

GENE'S BODY SHOP 3604 HIGHWAY 48 CHARLOTTE, TN 37036

February 23, 1988 Letter, with attached inspection report, from TDHE to Gene's Body Shop stated that the hazardous waste inspection of the facility on February 4, 1988, detected no violations. Source: Letter from James R. Spicer, TDHE DSWM, to Gene Miller, February 23, 1988.

June 28, 1988 HWSR indicated that the facility was an SQG. Since 1977, waste paint and paint sludge were generated during auto body painting at the facility. Waste paint was composed of methyl isobutyl ketone, toluene, xylene, methyl ethyl ketone. The DSWM HWSR, December 31, 1988.

February 23, 1995 HWN and HWSR stated the facility generated the same constituents as described in previous HWSR. Source: TDEC DSWM HWN and HWSR, February 23, 1995.

February 22, 2000 CESQG Report stated the facility was a CESQG that generated 1,025 kg of hazardous wastes in 1999. Source: TDEC DSWM CESQG 1999 Annual Reports of Hazardous Waste Activities, February 22, 2000.

GRAHAM FORD LINCOLN MERCURY HWY 46A BOX 516 DICKSON, TN 37055

March 3, 1999

HWN, HWSR and 1997 Offsite Shipping Report stated that reportable quantities (RQ) of waste petroleum naphtha (286 kg), waste combustible liquid (134 kg) Not Otherwise Specified (NOS) [hazardous constituents include lead, benzene, PCE, and trichloroethylene (TCE)] and aqueous brake cleaner (70 kg) (hazardous constituents include cadmium and PCE) were generated and transported off site by a TSDF. Attached to the notification form was a copy of the Annual Hazardous Waste Report Penalty Policy from Tom Tiesler, Director of TDEC, DSWM; dated March 2, 1995. Source: TDEC DSWM HWN, March 3, 1998.

HARBOUR, INC. (FROMERLY WINNER BOATS) FIRST AND PICKERT ST DICKSON, TN 37055

April 24, 1985 Hazardous waste facility inspection conducted by TDHE, stating that 3200 kg/month of spent acetone and 450 kg/month of still bottoms were generated by the facility. Source: Hazardous Waste Facility Inspection by Bob Gardner, TDHE DSWM, April 24, 1985.

July 3, 1985 Letter from Harbour Inc. to TDEC DSWM requested that TDEC DSWM exempt the spent acetone from state remedial action fee requirements based on the Rules Governing Hazardous Waste Management in Tennessee, Rule 1200-1-11-01 (3) (d). The facility proposes to reclaim the spent acetone on site by the use of a solvent Source: Letter from Joe D. Bledsoe, Vice President

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WINNER/Harbour, Inc. to Tom Tiesler, TDEC DSWM, July 3, 1985.

December 12, Handwritten note regarding an inspection conducted at Harbour, Inc. This note 1985 indicated that Harbour Inc. manufactures fiberglass boats, with waste acetone generated during cleanup of operations. The acetone is recycled on site, and the resulting nonhazardous still bottoms are disposed of in the Dickson County Landfill. Harbour received a tentative recycling exclusion on September 30, 1985. Source: Handwritten notes by unknown person, December 12, 1985.

January 21, 1986 Report describing waste acetone still bottoms generated at the facility. description states that spent solvent is processed in an on-site solvent recovery unit to reclaim acetone. The resultant "still bottoms" has no free liquids and is not ignitable. Harbour has DSWM approval to dispose of the still bottoms with other plant trash in the local landfill. Also noted in the form was that the company has a variance from classification as a waste. Source: TDHE DSWM Hazardous Waste Stream Description Form, January 21, 1986.

Report stated that Winner Corporation is out of business and was reorganized as July 18, 1986 Harbour, Inc. "Winner" is still used on the boats produced at Harbour. Source: TDHE DSWM CMEAR, July 18, 1986.

January 9, 1987 HWSR stated that the facility's hazardous waste generation and disposal information was the same as described above. Source: TDHE DSWM HWSR, January 9. 1987.

May 5, 1987 TDEC DSWM CMEAR indicates that Harbour, Inc., has a variance from classification as a waste generator. Source: TDEC DSWM CMEAR, May 5, 1987.

October 5, 1987 Public Notice from TDHE giving notice of the tentative decision to grant Harbour, Inc., a variance from classification as a waste generator of spent acetone due to the use of an on-site acetone recovery system. Source: Public Notice from TDHE DSWM Regional Office, October 5, 1987.

February 4, 1988 HWSR states facility's hazardous waste generation and disposal information was the same as described above. Source: TDHE DSWM HWSR, February 4. 1988.

October 5, 1995 HWN and HWSR stated facility's hazardous waste generation and disposal information was the same as described above. The report indicated Harbour, Inc., was no longer in business. Source: TDEC DSWM HWN and WSR, October 5 1995.

INTERSTATE PACKAGING HWY 47 NORTH WHITE BLUFF, TN 37187

May 18, 1984

Hazardous Waste Inspection report stated the facility produces printed plastic packaging, which results in the formation of a flammable liquid and waste PCE. During the inspection, 112 labeled drums containing liquid, semisolids, and solids were stored behind the plant, which represented 1 year's generation of waste at the facility. The inspection report also stated that the facility is beginning on-site distillation of the existing wastes and use of the resultant still bottoms in production of black ink. Additionally, 14 violations of hazardous waste management rules were noted, primarily involving a lack of recordkeeping and contingency planning. Source: Hazardous Waste Inspection report by Mark McWhorter, TDHE DSWM, May 31,1984.

May 21, 1984

Report stated that the Dickson County Health Department called and advised TDHE DSWM that Interstate Packaging was involved in a spill of an unspecified product. The report stated that it was a sewer lift station malfunction. Source: TDHE DSWM CMEAR, May 21, 1984.

July 2, 1984

Letter from Mr. Paul Finger Lynes to TDHE DSWM clarified issues in Interstate Packaging's exclusion petition for resource recovery, including the waste code designation for wash-up solvent and the method of treatment for waste PCE. Source: Letter from Paul Finger Lyons, Craig-Lynes Chemical Management, Inc. to Tom Yates, TDHE DSWM, July 2 1984.

August 20, 1984

HWSR stating that Interstate Packaging uses 1,000 gal/yr of PCE, which is disposed of off site. Still bottoms are generated from recovered PCE. Analysis is required to determine toxicity of still bottoms. Source: TDHE DSWM HWSR, August 20, 1984.

October 23, 1984

Letter from Craig-Lynes Chemical Management to TDHE DSWM discussing analytical results of a composite sample from still bottoms derived from solvent D001 reclamation. Analytical results indicated that the still bottoms were nonhazardous. The letter requested approval by TDHE for disposal of a backlog of still bottom material in the Dickson County Sanitary Landfill. Source: Letter from Paul Finger Lyons, Craig-Lynes Chemical Management, Inc., to Mark McWhorter, TDHE DSWM, October 1984.

Attached to the letter were two letters from Resource Recycling Technologies to Craig-Lynes Chemical Management. A letter dated October 12, 1984, reported the analytical results of the composite sample described above. The other letter dated August 3, 1984, describes analytical results of samples of ink still bottoms and PCE still bottoms. The composition of the ink bottoms was 35 percent chlorine, while the PCE still bottoms were composed of 41 percent PCE, 2 percent butyl alcohol, less than 1 percent of ethanol, acetone, and 56 percent solids. Sources: Letter from Arthur Newby, Director of Technical Services, Resource Recycling Technologies, Inc., to Paul Lynes, Craig-Lynes Chemical Management, Inc., October 12, 1984 and August 3, 1984.

- October 31, 1984 Letter from TDHE DSWM to Interstate Packaging indicating that disposal of the backlog of special waste solvent still bottoms into the Dickson County Sanitary Landfill would be allowed. Two disposal events would include:
 - Immediate disposal of 30 5-gallon buckets
 - Disposal of 20 5-gallon buckets at a later date

Source: Letter from Mark McWhorter, TDHE DSWM, to Interstate Packaging Company, October 31, 1984.

- February 27, 1985 Remedial Action Fee (Superfund) Worksheet stated that the total amount of hazardous waste generated during 1983 was 13,021 kg resulting in a \$300.00 fee. Source: TDHE DSWM Remedial Action Fee (Superfund) Worksheet.
- March 27, 1985 1984 Hazardous Waste Generation Summary Report stated the following:
 - EPA waste code for waste flammable liquid (WFL) is D001; amount of WFL generated during 1984 was 13,000 kg; amount of WFL on site on 01-01-84 was 6,500 kg; amount on site on 12-31-01 was 3,250 kg; WFL waste management methods listed as H09.
 - EPA waste code for PCE waste is F002; amount generated during 1984 was 7,000 kg; amount on site on 01-01-84 was 3,500 kg; amount on site on 12-31-01 was 1,750 kg; PCE waste management method listed as H09.

Source: TDHE DSWM Hazardous Waste Generation Summary Report.

- June 6, 1985

 1985 Hazardous Waste Management Fee Worksheet stated that no hazardous waste was shipped off site during 1985. Source: TDHE DSWM 1985 Hazardous Waste Management Fee Worksheet.
- October 9, 1985 Remedial Action Fee (Superfund) Worksheet stated that the total amount of hazardous waste generated during 1984 was 7,507 kg. Source: TDHE DSWM Remedial Action Fee (Superfund) Worksheet.
- November 5, 1985 Hazardous Waste Description report described waste generated at site as PCE still bottoms. Still bottom distillation process generated the still bottom waste at an annual average of 960 kg. Source: TDHE DSWM Hazardous Waste Description.
- November 27, Letter from Craig-Lynes Chemical Management to TDHE DSWM indicated that the following two types of waste are generated at the facility:
 - Printing press waste, consisting of isopropyl alcohol, which is classified as nonhazardous and disposed of at the Dickson County Sanitary Landfill
 - Platemaking waste, consisting of PCE, which is classified as hazardous and is disposed of at a TSDF.

Source: Letter from Paul Finger Lynes, Vice President, Craig-Lynes Chemical Management, Inc. to Tom Yates, TDHE DSWM, November 27, 1985.

Attached to this letter was a letter from TDHE DSWM to Craig-Lynes, dated December 29, 1986, granting Interstate Packaging special waste approval for up to 150 gallons per month isopropyl alcohol waste. The waste will be disposed of in Dickson County Landfill. Source: Letter from Mark McWhorter, TDHE DSWM, to Craig-Lynes Chemical Management, Inc., December 29, 1986.

January 17, 1986 Report stated that a D001 solvent is produced during "clean up" operations, and PCE is produced from plate etching operations. Report states that one distillation unit is present at the site, and a second distillation unit has been ordered. A backlog of drums containing still bottoms, solvent, and PCE has accumulated on site, with a scheduled pickup for Jan. 24, 1986. A follow-up inspection will be performed to ensure removal of drums. No violations were found. Source: Hazardous Waste Facility Inspection by David Wall, TDHE DSWM, January 17, 1986.

February 11, 1986 Hazardous Waste Description report states that a flammable liquid waste (alcohol) in liquid form is produced at an annual average of 13,000 kg. Source: TDHE DSWM Hazardous Waste Description.

May 19, 1986

Annual Shipping Report for Hazardous Waste Generators showing no shipments reported for 1985. Source: TDHE DSWM 1985 Annual Shipping Report for Hazardous Waste Generators, Certified by Ray Russell the plant manager.

HWN described the listing facility location, contacts, and number of employees. Source: TDHE DSWM HWN.

May 24, 1986 Report described the waste stream of PCE still bottoms as a solid under the "otherwise toxic" hazard criteria. The waste was produced at an annual average of 1986.

Report described the waste stream of PCE still bottoms as a solid under the "otherwise toxic" hazard criteria. The waste was produced at an annual average of 1986.

June 2, 1986 Report described the waste stream of spent PCE as a liquid under the "otherwise toxic" hazard criteria. The waste was generated by photopolymer plate washout process and produced at an annual average of 36,000 kg. Source: TDHE DSWM Hazardous Waste Stream Description, June 2, 1986.

August 21, 1986 Hazardous waste generation summary report indicated that 980 kg of PCE still bottoms and 36,000 kg of spent PCE were generated at the facility in 1985. Source: TDHE DSWM Hazardous Waste Stream Description, August 21 1986.

Public Notice issued by TDHE with the tentative decision to grant Interstate

Packaging a variance from classification as a waste for spent isopropyl alcohol (D001) and spent PCE (F002) because both wastes are reclaimed and reused at the facility. Source: Public Notice issued by TDHE DSWM, September 24, 1986.

December 2,
1986

Inspection report stated that Interstate Packaging had a variance on the D001 solvent and PCE wastes produced at the site. Report states the only waste generated at the site was PCE still bottoms. No violations were found. Source: Inspection Report by Tom Golden, TDHE DSWM, December 4, 1986.

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January 6, 1987 Letter from TDHE granted Interstate Packaging the variance for the two waste streams generated at the facility: spent PCE and spent isopropyl alcohol. Source: Packaging Company, January 5, 1987.

May 6, 1987 HWN stated PCE (F002), PCE still bottoms (F002), and waste ink (D001) were generated by the facility. Source: TDHE DSWM HWN, May 6, 1987.

February 25, 1993 Letter from Resource Consultants to TDEC DSWM stated the use of a new "clean-up" solvent added to the cycle is defined as a hazardous waste; therefore, the facility is no longer a CESQG. The facility will submit a variance request in the future that will allow them to return to CESQG status. Source: Letter from Jeffrey Twaddle, P.E., Resource Consultants to Tom Tiesler, TDEC DSWM, February 25, 1993.

HWN and HWSR, included as enclosure to the letter, indicated that waste ink and cleanup solvent are recycled using an on-site still. This resulted in nonhazardous still bottom waste disposed of at Dickson County Balefill with a special waste permit. Source: TDEC DSWM HWN and HWSR, February 26, 1993.

February 16, 1995 Letter from TDEC to Interstate Packaging stated the facility's application for special waste disposal regarding "cleaning solvent still bottoms" is denied because the solvent is not a suitable waste for disposal in the Dickson County Balefill. The landfill did not have sufficient groundwater monitoring capabilities to accept waste. Source: Letter from Frank J. Padovich, Environmental Specialist, TDEC DSWM, to John Hoots, Interstate Packaging, February 16, 1995.

September 6,
1995

Letter from Interstate Packaging to TDEC DSWM, stating the facility is withdrawing its request for variance from the hazardous waste regulations concerning its alcohol reclamation process. Source: Letter from Michael Doochin, Interstate Packaging, to Bobby Morrison, Manager TDEC DSWM, September 6, 1995.

February 15, 1996 HWN and HWSR indicated PCE is no longer used at the facility, only alcohol and solvents. Source: TDEC DSWM HWN and HWSR, February 15, 1996.

February 17, 1999 HWN and HWSR similar to the 1996 report. Source: TDEC DSWM HWN and HWSR, February 17, 1999.

LARRY'S BODY SHOP PLESENTVIEW RD. WHITE BLUFF, TN 37187

HWN and HWSR indicated the following wastes were generated by Larry's Body Shop: waste paint, paint thinners, and paint related material. The wastes were produced at an annual average of 289 kg. Source: TDHE DSWM HWN and HWSR, July 1, 1993.

January 24, 1996 HWN and HWSR similar to above reports. Reports indicated that the shop was out of business as of July 1995; the DSWM file was closed on that date, as well. Source: TDEC DSWM HWN and HWSR, January 24, 1996.

LEXALITE INTERNATIONAL CORPORATION GUMBRANCH RD. DICKSON, TN 37055

- March 3, 1992 HWSR states that an accidental spill of contaminated fluid occurred due to a "burst hydraulic line on injection molding machine." The wastes are listed as oil/water and trichloroethane (TCA). The amount generated during the year is reported as 413 kg. The report indicates that Safety Kleen transported waste off site. Source: TDEC DSWM HWSR, March 3, 1992.
- March 1, 1993 HWN and HWSR indicated water, hydraulic oil, 1,1,1-TCA, and PCE mixture was generated as waste (code F001), transported off site and incinerated as fuel. Source: TDEC DSWM HWN and HWSR, March 1, 1993.
- April 12, 1993 CMEAR indicated a site visit to verify the accidental spill and cleanup progress was conducted. Report indicates the spill occurred on March 16, 1993. Source: TDEC DSWM CMEAR by Tom Yates, April 12, 1993.
- June 9, 1993 HWSR indicated the facility had an accidental spill of acetone, which was excavated (about 16,400 kg of contaminated soil) and disposed of as code F003 waste. Source: TDEC DSWM HWSR, June 9, 1993.
- October 19, 1993 Letter from DSWM to Lexalite confirmed receipt of October 5, 1993, letter from Lexalite that included (1) information on the spill remediation at the facility, (2) waste manifests, and (3) Ferguson Harbour's sampling activities and results. Source: Letter from Tom Yates, TDEC DSWM, to Dale Troppman, Lexalite International Corporation, October 19, 1993.
- February 28, 1994 Off-site shipping report stated that 17,170 kg of waste code F003 and 559 kg of waste code F005 were transported off site by TSDFs. Source: TDEC DSWM 1993 Offsite Shipping Report, February 28, 1994.
- February 11, 1995 Analytical results of solid paint waste showing no toxicity characteristic leaching procedure (TCLP) characteristic, or D001, D002, and D003 waste codes characteristics. Source: Letter from Mark Hartwig, TCLP Laboratory Manager, Safety-Kleen, to Arnie Nettles, Lexalite International, February 11, 1995.
- March 6, 1996

 HWN and HWSR discussed in-house recycling of paint-related liquids that resulted in still bottoms that are transported off site. A waste stream of paint solids was which reduced total wastes generated. Source: TDEC DSWM HWN and HWSR, March 6, 1996.
- March 3, 1998 HWN and HWSR list hazardous waste codes D001, F003, F005, and D009 with the following constituents: acetone, methyl ethyl ketone (MEK), isopropyl alcohol, methyl isobutyl ketone (MIBK), toluene, and mercury (Hg). Not all waste in the process of being replaced by 2000. Source: TDEC DSWM HWN, March 3, 1998.

Report by DSWM states that Lexalite reduced its waste generation to the level qualifying them as a CESQG (it was classified as an SQG). There is one active waste paint hazardous waste stream that generates less than 100 kg/month. The waste paint is collected in 55-gallon drums prior to transport off site by a TSDF. The facility never allows more than 1,000 kg of waste paint to accumulate on site. Source: Hazardous Waste Inspection Report by Tom Yates, TDEC DSWM, February

MARTIN CABINET SHOP

July 18, 1986

TDEC DSWM CMEAR stating that Marin Cabinet Shop does not generate hazardous waste. Source: TDEC DSWM CMEAR, July 18, 1986.

MID-TENN AVIATION

July 18, 1986

TDEC DSWM CMEAR stating that Mid-Tenn Aviation is out of business. The facility is now run by Arch-Air Aviation and does not generate hazardous waste. Source: TDEC DSWM CMEAR, July 18, 1986.

MURPHY OIL USA, INC. 508 HENSLEY DRIVE DICKSON, TN 37055

June 4, 1991

HWSR indicated the facility is an SQG, generating gasoline-contaminated wastewater (code D001). Report stated that leaking underground storage tanks (UST), containing BTEX compounds, may have contaminated groundwater. Source: TDHE DSWM HWN, June 4, 1991.

March 3, 1993

HWN and HWSR indicated the same as the above; however, noted in the report was that the waste was no longer generated as of October 4, 1991. Source: TDHE DSWM HWN, March 3, 1993.

PREMDOR ENTRY SYSTEMS/EVERGREEN ENTRY SYSTEMS/CECO ENTRY SYSTEM ONE CECO PLACE DICKSON, TN 37055

July 19, 1993

Letter from DSWM with attached inspection report discussing results of an inspection conducted on July 14, 1993. The report noted that the facility was an LQG and that the following violations were observed: (1) insufficient logging of weekly inspections of on-site accumulated hazardous wastes; (2) insufficient documentation of duties and responsibilities for all jobs that involve hazardous waste activities; (3) insufficient recording of hazardous waste training activities; and (4) on-site hazardous waste containers not marked as hazardous waste. The letter confirmed the hazardous waste generator inspection conducted by TDEC on July 14, 1993, and noted that violations should be corrected no later than August 15, 1993. The report provides recommendations for correcting violations and indicates that a follow-up inspection will be scheduled to verify appropriate corrective actions. July 19, 1993.

February 23, 1994 HWN noted that the plant manager was Jim Weldon, the technical contact was Tony Speer, there were 135 employees, plant operations began in 1991, and the emergency contacts were Tony Speer and Jim Weldon. The current environmental permits for the plant included air permit # 035118P-035121P and 1997 general storm water permit # TNR000908. Source: TDEC DSWM HWN, February 23, 1994.

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- HWN and HWSR noted the following hazardous wastes are no longer generated and the date use was terminated: (1) chromium (D007), since Feb. 23, 1994; (2) toluol, (D001) that consists of barium, methylon-amyl ketone, methyl isobutyl ketone (D008, D039), since Jan. 30, 1994; (4) ethylene glycol/diethylene glycol wastewater F003) that primarily consists of MIBK, since December 28, 1994; (6) wastewater since Feb. 21, 1994; (7) concrete sealer (D001) consisting of aliphatic hydrocarbons, alkyl benzenes, and naphthalene, since Feb. 21, 1994; and (8) waste combustible that light aliphatic solvent naptha (D001) was generated at the facility at an annual ethyl benzene. Source: TDEC DSWM HWN and HWSR, March 15, 1995.
- April 8, 1997 HWN and HWSR noted light aliphatic solvent naptha was the site's only generated waste (about 442 kg transported off site by a TDSF). The report noted that an employee accidentally mixed (about 220 kg) of nonhazardous waste and hazardous waste. Source: TDEC DSWM HWN and HWSR, April 8, 1997.

QUEBECOR PRINTING/DIVERSIFIED PRINTING CORPORATION/MAXWELL GRAPHICS COLESBURG RD. DICKSON, TN 37055

- January 31, 1983 Hazardous Waste Facility Description indicating Diversified Printing Corporation is an SQG. Waste types generated at the site are spent nonhalogenated solvents (F003), wastewater treatment sludges (F006), and asphaltum and solvent waste (D001). Source: TDPH DSWM, January 31, 1983.
- February 24, 1983 Incomplete Hazardous Waste Facility Inspection report, which stated that four hazardous wastes were produced. The spent nonhalogenated solvents are shipped off site to Stauffer Chemical, and all other wastes go to Chemical Waste Management. Source: TDHE DSWM Hazardous Waste Facility Inspection, February 24, 1983.
- March 2, 1988

 HWN Summary and HWSR list facility name as Maxwell Graphics MorristownInc., the following: 78,000 kg of ink/solvent waste (lactol, toluene, and xylene); 50,625 kg of plating sludge (chromium and copper); 27,396 asphaltum and solvent (lactol and 4,321 kg of waste mineral spirits, parts wash solvent. Reports state the facility no longer generates methylene chloride. Source: TDHE DSWM HWN and HWSR

December 13, 1990

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HWSR lists facility name as Quebecor Printing Dickson Inc. and indicates yearly hazardous waste production at the facility includes 205,898 kg of ink/solvent waste (lactol, toluene, and xylene) and 1,777 kg of waste mineral spirits, which is a parts washing solvent. The report also indicates that trichlorofluromethane is produced at annual average of 327 kg, but that none was generated in 1989. Source: TDHE DSWM HWSR, December 13, 1988.

August 1, 1990

Enforcement Request to Quebecor Printing, Inc., from TDEC DSWM, which summarizes violations at the facility during an inspection on July 24, 1990, and follow-up inspection on August 1, 1990. Noted in the form were 20 violations of Division Rule 1200-1-11-.03, and one violation of Rule 1200-1-11-.07. Source: Enforcement Request by Dimitra Syriopoulou, Environmental Engineer, TDEC DSWM, August 1, 1990.

October 9, 1991

TDEC letter with attached consent order from the Solid Waste Disposal Control Board ordering Quebecor Printing Dickson (sic) to comply with the Tennessee Hazardous Waste Management Act and all Division Rules. This consent order was granted based on 20 violations of Division Rule 1200-1-11-.03, and one violation of Rule 1200-1-11-.07 by Quebecor Printing, Inc., in 1990. Source: Letter from Joseph Sanders, Assistant General Counsel, TDEC, to Ron Irlinger, Quebecor Printing Dickson (sic), October 9, 1991.

March 3, 1992

1992 Hazardous Waste Generator Maintenance Fees form stated 319,184 kg of hazardous waste was shipped off site during 1991, the facility accumulated 1,000 kg or more of hazardous waste 38 times, and the facility generated 1,000 kg or more of hazardous waste in 12 months during 1991. The worksheet indicated payment of a \$700.00 fee to TDEC. Source: TDEC DSWM 1992 Hazardous Waste Management Fee Worksheet.

March 3, 1997

HWN, HWSR, and 1996 Offsite Shipping Report indicate wastes generated by the Quebecor Printing Dickson Inc. include plating sludge (30,000 kg annually), ink/solvent waste (120,000 kg annually), ink sludge from ink fountains (71,400 kg annually), waste mineral spirit and parts wash solvent (1,777 kg annually), and waste film developer consisting of acetic acid, aluminum chloride, and silver (830 kg annually). All wastes are transported off site by TSDFs. Source: TDEC DSWM HWN, HWSR and 1996 Offsite Shipping Report, March 3, 1997.

November 6, 1997

DSWM letter with an attached inspection report. The inspection conducted on October 30, 1997 indicated Quebecor Printing Dickson is an LQG. Wastes accumulated on site consisted of: (1) 14,000 kg/mo of ink solvent waste (F0O5, D001) consisting of lactol solvents, toluene, and xylene, (2) 6,397 kg/mo plating sludge (F006) consisting of chromium and copper; (3) 5,900 kg/mo of ink sludge (D001) consisting of hydrocarbon solvents, resins, and pigments; and (4) 77 kg/mo of mineral spirits and parts wash solvent (D001). The inspection notes that a solvent recovery system was installed at the facility. No violations were identified. Source: Letter from Tom Yates, TDEC DSWM, to Donna Brown, Quebecor Printing Dickson Inc., November 4, 1997.

RYDER TRUCK RENTAL, INC. 199 PRINTWOOD DRIVE DICKSON, TN 37243

December 31, 2000

Letter from H₂O Environmental to DSWM with a portion of the Groundwater Monitoring Report, 1st Semi-Annual, 3rd Year Sampling Event for the Former Ryder Truck Rental facility attached. Report includes figures of the monitoring well system, potentiometric surface map of the facility, and groundwater analytical results. Groundwater samples were collected from 13 monitoring wells and analyzed for BTEX; volatile organic aromatics (VOA); chlorinated solvents (TCE and chloroethene); total volatile organic hydrocarbons; gas and diesel range organics; and extractable petroleum hydrocarbons (EPH). Source: Letter and report from Michael Harris, Division Director, H₂O Environmental, Inc., to Brian Gant, TDEC DSWM, December 31, 2000.

May 22, 2001

Summary of actions taken at site with attached e-mail dialogues between Ashley Holt and Mark Quarles. Sources: Summary from Brian Gant, TDEC DSWM, date unknown; E-mail correspondence between Ashley Holt of DSWM and Mark Quarles of Tetra Tech EM Inc.

SAGE RACING TEAM BELL WOOD HEIGHTS DICKSON, TN 37055

July 16, 1986

TDEC DSWM CMEAR stating that Sage Racing Team does not generate hazardous waste. Source: TDEC DSWM CREAM, July 18, 1986.

SALTIRE INDUSTRIAL INC. 201 TENNSCO DRIVE DICKSON, TN 37055

May 17, 1996

HWN and HWSR indicated the facility was closed. Wastes were generated during the demolition of an inactive wastewater treatment plant. The waste types generated were (1) a hazardous waste solid, including dried sludge, non-friable asbestos, and lead-based paint and (2) hazardous waste solid, including lead-contaminated debris (metal, concrete, wood, and bricks). Source: TDEC DSWM HWN and HWSR, May 17, 1996.

May 20, 1996

Letter from DSWM issuing the facility an EPA ID Number (TNR 00-000-1198). Source: Letter from Bobby Morrison, Manager Waste Activity Audit, TDEC DSWM, to Nicholas Bauer, Saltire Industrial, Inc., May 20, 1986.

May 4, 1997

HWN, HWSR, and 1996 Offsite Shipping Report indicated same waste streams as the 1996 report; however, the lead-contaminated debris was determined by TCLP to be nonhazardous solid waste and was disposed of in a landfill. Source: TDEC DSWM HWN, HWSR and 1996 Offsite Shipping Report, May 4, 1997.

SCOVILL/SCHRADER AUTOMOTIVE PRODUCTS

- January 1, 1981 Reported hazardous waste generated for 1980 included "waste oil contaminated with TCE" (TCE still bottoms) at 1,500 kg (maximum) per month, "wastewater treatment sludges from electroplating and metal finishing operations" at 25,000 kg (maximum) per month, and "paint residues from industrial painting" at 2 kg (maximum) per month. The still bottoms were transported for off-site refining. The sludges were "not shipped off-site," and the paint residues were disposed of at the Dickson County Landfill. Source: Hazardous Waste Generator Notification form, January 29, 1981.
- February 25, 1981 Form 1 and Hazardous Waste Permit Application describing four waste types (F006, F001, F017, and F007), and showing the locations of existing/future landfill areas on site, including a drum storage area, a wastewater treatment system, disposal cells, above- and belowground tanks for diesel fuel, cutting oils, and TCE. Source: Form 1 and Hazardous Waste Permit Application, February 25, 1981.
- Report that describes the facility's groundwater monitoring program as required by the "Tennessee hazardous waste control rules and regulations." The report discussed the following disposal cell dimension: existing cells were 5 to 6 feet wide and varied in length from 12 to 30 feet; newer cells were 6 feet wide and 12 feet long; and two older cell groups were 5 to 6 feet wide and 20 to 30 feet long. The report illustrated the locations of the cells to the south of the main manufacturing building. One proposed for Year 1. Groundwater samples would be analyzed for inorganics, pH, total organic carbon. Source: "Groundwater Monitoring Program" report, Alley, Young, and Baumgartner, Inc., January 1982
- March 24, 1982 Report titled "Hazardous Waste Control Program" included forms documenting hazardous waste disposal by waste name, code, form, analytical data, amount, cell number, and cell dimensions. Emergency procedures, a contingency plan, and a closure plan were included. The document was prepared to "protect all those affected." The report described six disposal areas of 106 cells and a maximum sludge inventory of 9,600 cubic yards (60 acre-feet). The landfill was expected to last through 2002 at a rate of one to three cells per year. Source: "Hazardous Waste Control Program," Alley, Young, and Baumgartner, Inc., March 24, 1982.
- March 15, 1983 Inspection report for a March 15 site visit by EPA. Violations for records and storage issues were noted. A violation for an inadequate groundwater monitoring system was also noted. The State requested another upgradient well. Furthermore, the monitoring program was instituted approximately 1 year later than required. Source: ISS Overview Inspection memo to file, April 4, 1983, U.S. EPA.
- March 24, 1983 Groundwater monitoring results transmitted to Schrader. Results for iron and manganese were "somewhat high zinc in a downgradient well" but "still below the EP toxic levels." Source: Alley, Young, and Baumgartner, Inc. letter, March 24, 1983.
- August 10, 1983 Notice of Violation issued for not implementing the groundwater assessment program in affect by November 19, 1981 and exceeding maximum constituent levels. Source: Letter from Tennessee DPH to Schrader, August 10, 1983.

July 31, 1984

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Report summarizing results of a July 31, 1984, site inspection of "Scovill/Schraeder Automotive." The inspection was performed to check the status of groundwater monitoring system and implementation of the groundwater quality assessment program. The report concluded that the very steep groundwater gradient between wells 2, 3, and 1 warranted "further study" and that the landfill pits "are nearly impossible to delineate." Source: Site Inspection Report, National Water Well Association, on behalf of U.S. EPA.

Est.1984/1985

Appendix describing groundwater well installation for the initial four wells proposed in the Groundwater Monitoring Program report, January 1982. The report stated that there "has not been any contamination of the groundwater from the facility." Well W-4, located to the northeast and proposed as an upgradient location, was not used because it was "near the disposal cell area." Boring logs indicated that hollow-stem augers were advanced into the soil, and wet conditions were reported at 55, 50, 23, and 50 feet below ground surface. The wells were finished with 10-foot screens that did not "bracket" the entire saturated zone. Refusal at bedrock was only encountered in one boring. The wells were constructed with a sand pack and bentonite seal; however, no annular grout (soil cuttings were used) was used to seal the boring from the seal to the ground surface. Source: Part E, Groundwater Monitoring, E-1, Interim Status Monitoring Data, Alley, Young, and Baumgartner, Inc.

May 8, 1985

Letter from U.S. EPA to Scovill/Schrader prohibiting the placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in a hazardous waste in any landfill. The effective date of this restriction was May 8, 1985. The letter requested that plans describing Scovill/Schrader's implementation of this requirement be submitted to the U.S. EPA within 10 days. Source: Letter from EPA

August 6, 1985

Fact sheet indicating that DSWM visited the Schader-Erranton dump site to view waste disposal conditions. Source: Schrader-Erranton Site (22-505) Fact Sheet, February 21, 1991, Tennessee DSF.

The dump was situated on the back of an approximately 100-acre pasture. Mr. Erranton was contracted by Schrader to haul approximately 21 truck loads of waste. The sludge was buried in a pit 10 feet by 60 feet and from 6 to 10 feet deep and covered with approximately 2 feet of soil. Source: Scharder-Erranton Site (22-505) Fact Sheet, February 21, 1991, Tennessee DSF.

September 11, 1985

TDHE memo summarizing a September 10, 1985, TDHE visit to four dump sites where wastes were "allegedly dumped or caused to be dumped." The following dump sites were listed: Yellow Creek site; H.G. Erranton Site; Adcock Cemetery Road site; and the Ivan J. Lewis site. The following observations were made at each

- Yellow Creek: Waste material on the surface adjacent to the creek; areawas subject to flooding; the waste area was 40 feet long and 20 to 30 feet wide.
- Erranton: Not visited because of access restrictions.
- Adcock Cemetery: Waste scattered across a 1- to 2-acre site, spread in

Lewis: Area was "about 10 to 20 feet wide and several 100 feet long," and waste appeared to have been placed in an abandoned road bed and was visible on the surface.

Samples from two sites (not defined) indicated EP Toxicity for cadmium and nickel. The facilities were located on maps. Source: Memo to file from C. Powers of TDHE, September 11, 1985.

TDHE memo summarizing an August 6, 1985 site visit to Adcock Cemetery, Yellow Creek, and "Glenn Errington" dump sites. Site summary information was provided. Property ownership and site observations were discussed. The sludge at the Adcock and Yellow Creek sites was at least 15 years old. Mr. Erranton stated that he hauled 21 loads of waste between March 1969 and January 1971 that he buried at the direction of Schrader. A composite sludge sample was collected from the Yellow Creek site. Source: TDHE memo to file by James Spicer, TDHE, September 11, 1985.

September 19, 1985

TDHE memos discussing the geology and hydrogeology of four Schrader dump sites. Estimates of groundwater flow direction were made based upon published information. Two memos made reference to two water well samples (Phillip Lewis and Richard Loftin wells) taken from wells located "about 200 to 300 feet northwest and south of the Lewis site." Source: Memo to file by Bill Krispin, TDHE, September 19, 1985.

October 22, 1985

Letter from Schrader to DSWM contained groundwater analytical results and stated "there does not appear to be any indication of leaching from the landfill cells to the groundwater." Samples were analyzed using groundwater monitoring program sample parameters. Source: Letter from Schrader to Tom Teisler, DSWM, October 22, 1985.

November 8, 1985

Statistical evaluation of groundwater monitoring results indicated apparent changes in Ni concentrations and other parameters as compared to background concentrations. Source: Letter from Alley, Young, and Baumgartner, Inc. to Schrader, November 8, 1985.

December 19, 1985

Report of results from a comprehensive groundwater inspection performed by the DSWM were provided to Schrader. Four wells were sampled by TDHE. The inspection report noted that an on-site wastewater treatment plant "has been closed and the landfill is not receiving any wastes." The report also noted that three piezometers had recently been installed. Two violations of the groundwater monitoring program were identified, including untimely semi-annual sampling and monitoring well data that showed "a significant difference in the statistical comparison." Source: Comprehensive Ground Water Inspection report, TDHE,

January 2, 1986

Citizen's Complaint letter from William Barrick on behalf of Save the Piney representatives requesting that Willow Creek, located adjacent to the Schrader site, be sampled. Samples collected by the Piney representatives indicated "high" metals concentrations. Source: Letter to James Word, Commissioner, TDHE from William Barrick, January 2, 1986.

February 7, 1986

Preliminary Evaluation report of Schrader sites by TDHE describing locations of each site, site geology, hydrology, and hydrogeology. The report also provides sketches of each site. Codes were assigned to each site as follows:

- Lewis Site (22503)
- Adcock Cemetery Site (22504)
- Erranton Site (22505)
- Yellow Creek (22506)

Sampling had not been performed at the Lewis site (awaiting Commissioner's Order), Adcock Cemetery site (no reason given), or the Erranton site ("due to the wishes of Mr. Erranton"). Sampling from the Yellow Creek site indicated "high concentrations of nickel and cadmium." Evidence suggested dump site seepage into the creek, although no testing was performed. Source: Preliminary Evaluation, TDHE, Robert Powell, February 7, 1986.

February 27, 1986 Letter from TDHE to Schrader advising of the public notice requirement associated with the proposed application to close the hazardous waste landfill located on site. Source: Letter from Tom Teisler of DSWM to Schrader, February 27, 1986.

April 3, 1986

Letter to TDHE requesting a variance from liability coverage requirements. The basis for the request was (1) that analysis of the risk of release of environmental contaminants to the surface and groundwater was "relatively low" and (2) the fact that it was "impossible as a practical matter for Scovill to obtain the required An attached summary stated that the plant was "closed and decommissioned in March 1985" and that the landfill received the last volume of waste in October 1984. Source: Letter dated April 3, 1986 from Charles Perry, Ogletree, Deakins, Nash, Smoak, and Stewart on behalf of Schrader to TDHE.

June 23, 1986

Letter from TDHE that discussed renewed compliance for previous groundwater violations and closure requirements. Reference was made to a January 21, 1986, letter discussing specific closure requirements. The closure requirements were stated as follows: "if no contamination is found in the soil beneath the site, then the site will be considered to be clean closed. If contaminants are found, then the monitoring system will have to be in place and operating properly." Source: Letter from Bill Krispin, TDHE to Schrader, June 23, 1986.

July 18, 1986

Public notice discussing date for which public comments can be received for TDHE "Notice on Intent to Approve a Plan for Closure of a Hazardous Waste Management The notice indicates that Schrader proposed to "excavate all hazardous wastes which have been landfilled and transport it to a permitted hazardous waste landfill for disposal." The proposed excavation criteria for determining what should be excavated and disposed of as a hazardous waste was soil sampling results based on the following action levels: 1.0 mg/L cadmium, 5 mg/L total chromium, 20 mg/L nickel, and 10 mg/L total cyanide. No chemical organic sampling was mentioned. Source: Public Notice, TDHE, DSWM, July 18, 1986.

September 5. Phone log of conversation between Jerry Booker and DSWM. Mr. Booker stated 1986 that he recently installed a 300-foot well that "might be influenced by one of Schrader's old dump sites." The "dump site" is stated to be the former Hartwell property on Old Cemetery Road. Mr. Booker was referred to the DSF. Source: Field/Activity Report, Mark McWhorter, DSWM. October 7, 1986 A Commissioner's Order issued for the other three (Yellow Creek, Adcock Cemetery Road, and the Lewis Site) dump sites. Source: Scharder-Erranton Site (22-505) Fact Sheet, February 21, 1991, Tennessee DSF. November 18, Document references collection of a water sample from the well of Robert Deason, 1986 located approximately 0.5 mile from Schrader, but does not present analytical results. Source: TDHE Compliance Monitoring Report (dated August 8, 1989) by January 6, 1987 Preliminary Assessment report completed for the former manufacturing site, which concluded "there is no evidence that past waste handling practices at this facility are affecting the population or the environment. However, due to the hazardous qualities heavy metals and their ability to migrate, and the sloppy manner of handling the wastes that was exhibited by Schrader, a site inspection with a medium priority should be scheduled for this site." Source: Potential Hazardous Waste Site, Preliminary Assessment, January 6, 1987. April 29, 1987 Enforcement request from DSWM related to the fact that Schrader had not initiated closure within 90 days of approval of closure plan or completed the closure within 180 days. Source: Field Office Enforcement Request, April 29, 1987 assumed date. May 12, 1987

Letter describing the agenda for a Visual Site Inspection planned for May 21, 1987, as part of a RCRA Facility Assessment. The objectives of the visit were to view and photograph 28 solid waste management units (SWMU) and to assess the likelihood of releases from the SWMUs. Source: Letter from A.T. Kearney, Inc. to U.S. EPA,

TDHE memo to file describing site observations and sampling results during a July July 17, 1987 16, 1987, site visit to observe site closure at the manufacturing facility. Sample results for five metals discussed in terms of "successful removal." The total hazardous waste to be removed is estimated at 18,000 to 19,000 cubic yards. Source: Memo to file from Victor Harness, TDHE.

September 21, Letter summarizing the groundwater monitoring data for seven wells on site. 1987 Although there were statistical variations in the results, the consultant concluded that "groundwater underlying the Schrader plant site has not been affected ..." Source: Letter from ICF Technology to DSWM, September 21, 1987.

September 28, Letter from TDHE summarizing observations and recommendations from a site 1987 inspection conducted on September 22, 1987. The letter stated that closure activities were projected to be completed by November 1987 and that no violations were noted. Source: Letter to Ogletree, Deakins, Nash, Smoak, and Stewart irom. March 15, 1988 Letter from TDHE determining that the "subject facility has been closed in a manner that complies in substance with the closure plan we had previously approved." The letter also relieved Schrader of any obligation to maintain financial assurance for closure and post-closure care and for plant liability coverage. Source: Letter from Tom Teisler, DSWM to John Crum of Scovill Corporation, March 15, 1998.

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- April 6, 1988 TDHE Notice of Dismissal in the matter of Schrader Automotive, Inc. Source: TDHE Notice of Dismissal and Final Agreed Order, April 6, 1987.
- May 3, 1988 Letter from U.S. EPA to TDHE questioning the approved closure plan. The following discrepancies were discussed in the letter:
 - The number of disposal cells present at the site ranged from 62 by electromagnetic survey, to 94 identified by SRW Associates, to 137 cells being identified in the Part B application
 - The number of sludge drying beds removed from the site (SRW stated four, Part B application stated six)
 - Groundwater sampling data were omitted for total organic halogens (TOX),
 - Closure excavation sampling results from seven cells were questioned because no samples were collected at the limits of the excavations

EPA requested a post-closure application be prepared. Source: Letter from U.S. EPA to Tom Teisler, DSWM dated May 3, 1988.

- April 11, 1989 Fact sheet stated that a consulting firm representing Scovill collected samples from soil borings at the Erranton site to determine the extent of contamination. Source: Schrader-Erranton Site (22-505) Fact Sheet, February 21, 1991, Tennessee DSF.
- April 19, 1989 Screening Site Inspection, Phase I report for the manufacturing facility prepared and submitted to the U.S. EPA. The report included a RCRA Facility Assessment Report (Reference 1) dated June 19, 1987, that contained recommendations for sampling at a leachate overflow pit, a trench to the wastewater plant, the underground storage tank used to contain TCE still bottoms, a waste drum storage area, and an These recommendations were made without complete access to most of the SWMUs. Reference 2 of the Screening Site Inspection report indicates that employees with the City of Dickson Water Department described the use and well depth for municipal wells DK-17 and DK-21. The Closure Report that documented closure of the disposal cells was included as Reference 3 of the report. The level-of-effort included a file review, a target survey, and a drive-by reconnaissance. The report concluded since "this facility was cleaned up under RCRA, it is recommended that no further action be planned for this site" though the closure was only for the disposal cell areas. Source: Screening Site Inspection, Phase I report by NUS Corporation, April 19, 1989, (U.S. EPA Disk 2).
- May 16, 1989 Disposition form stating disposition of the manufacturing site as "NFRAP, site (U.S. EPA Disk 2).

August 29, 1989 Letter to Scovill from TDHE stating TDHE's approval of the Closure Plan for the manufacturing facility site "may have been in error" based on new information provided by U.S. EPA. The March 15, 1988, approval letter was rescinded. Scovill was required to (1) submit information refuting EPA's claims by November 1, 1989, or (2) pursue additional activities to achieve "clean" closure by November 1, 1989, or (3) pursue a "dirty" closure with post-closure permit due by April 2, 1990 (with a notification due by October 2, 1989). Conditions for each option were given. The letter also referenced Scovill's effort to enter into a Consent Agreement with EPA relative to investigative and corrective actions at regulated units and other SWMUs. Source: Letter from Tom Teisler, DSWM to John Crum of Scovill, August 29, 1989.

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- Fact sheet stating that waste and residual contamination excavation was completed at the Erranton site. A total of 736 tons of waste and contaminated soil were removed. DSF.

 Fact sheet stating that waste and residual contamination excavation was completed at Source: Scharder-Erranton Site (22-505) Fact Sheet, February 21, 1991, Tennessee
- October 16, 1989 Fact sheet stating that confirmation sampling was performed at the Erranton site to verify that the site was clean. Source: Scharder-Erranton Site (22-505) Fact Sheet, February 21, 1991, Tennessee DSF.
- February 6, 1990 U.S. EPA issued an Administrative Order on Consent for the manufacturing facility that required corrective action to address "a release of hazardous waste into the environment from the Facility." The Order included modifications agreed to during a January 8, 1990, meeting. Source: Letter from U.S. EPA to John Crum of Scovill, February 6, 1990.
- February 21, 1991 Fact sheet summarizing events at the site indicated that closure of the Erranton site was delayed due to high concentrations of native metals in background soils. The site was evaluated for health risk affects and "considered clean." The area was apparently backfilled with clean soil, contoured, and seeded. Source: Schrader-Erranton Site (22-505) Fact Sheet, February 21, 1991, Tennessee DSF.
- March 29, 1991 Letter from U.S. EPA to law firm representing Scovill approving the RCRA facility investigation (RFI) workplan for the manufacturing plant with certain revisions that are outlined in the letter. Comments mention off-site sampling of private water wells, surface water, sediment sampling, and organic sampling. Source Letter from U.S. EPA to Ogletree, Deakins, Nash, Smoak, and Stewart, RFI Investigation Pursuant to Administrative Order on Consent, March 29, 1991.
- July 8, 1991 Monthly progress report for the manufacturing plant RFI indicated that activities were being performed to characterize the hydrogeology. Preliminary results indicated that TCE was the "primary contaminant in soils." Surface water and sediment sample analytical results were discussed. Source: Letter from ICF K₄iser Engineers to U.S. EPA, July 8, 1991.
- August 9, 1991 Monthly progress report for the manufacturing plant RFI indicated that activities were still being performed to characterize the hydrogeology. Results indicated that TCE was present in the groundwater at concentrations up to 140 mg/L. Source: Letter from ICF Kaiser Engineers to U.S. EPA, August 9, 1991.

September 24, 1991

Memo to file stating additional contaminated areas were identified. Source: Memo to file by Claudia Brand, Project Coordinator, September 24, 1991.

October 1991

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A Record of Decision issued for the Glenn Erranton/Schrader site (22-505) stating wastes contained "high" levels of chromium, lead, and nickel. Confirmation sampling and analysis of the pit resulting from waste removal was "clean." A health risk appraisal based on site conditions "indicated no potential adverse health affects." A total of 736 tons of waste and soil were excavated and disposed of at a Chemical Waste Management landfill in Emelle, Alabama. No groundwater monitoring was required "based on analytical data for surrounding soils." Source: Record of Decision, October 1991, TDEC, Division of Superfund.

January 15, 1992

A Record of Decision was issued for the James Jones/Adcock Cemetery/Schrader site (22-504). The wastes contained "high" levels of chromium, lead, and nickel. Plating sludge transported to the site from 1970 to 1971 was used to fill gullies to control erosion. Confirmation sampling and analysis indicated that after removal, there were "no potential adverse health affects." A total of 918 tons of waste and soil were excavated and disposed of at a Chemical Waste Management landfill in Emelle, Alabama. No groundwater monitoring was required "based on analytical data for surrounding soils." Source: Record of Decision, January 1992, TDEC, Division of Superfund.

January 15, 1992

A Record of Decision was issued for the Ivan Lewis/Schrader site (22-503) stating that wastes contained "high" levels of chromium, lead, and nickel. Plating sludge was transported to the site placed on an old roadway. Confirmation sampling and analysis indicated that site was "clean" after waste removal and that there were "no potential adverse health affects." A total of 2,543 tons of waste and soil were excavated and disposed of at a Chemical waste Management landfill in Emelle, Alabama. No groundwater monitoring was required "based on analytical data for surrounding soils." Source: Record of Decision, January 1992, TDEC, Division of Superfund.

May 28, 1993

Memo stated that DSWM personnel verified that all affected homeowners having wells with TCE detected in groundwater had been notified and bottled water was being supplied. Source: Memo to file from Ronnie Bowers, DSWM, June 7, 1993.

June 1, 1993

Memo to file that discussed the status of TCE-contaminated water wells. A representative for Scovill stated that "all persons by wells identified with TCE contamination had been provided bottle water. (Scovill) also informed me that they had given all well owners a choice of hooking on to city water or having their well fitted with a carbon adsorption filtration system for long term measures." Source: Memo to file from Clayton Bullington, DSWM, June 1, 1993.

Memo to file discussing analytical results of the groundwater monitoring of private wells identified as being contaminated during the RFI work plan implementation. Wells within a 1-mile radius were to be sampled. Nine of 27 wells exceeded the MCL for TCE (5 ppb). The memo added that the state "will need to check on the progress for supplying water to the residents in question..." Source: Memo to file from Bill Krispin, DSWM, June 1, 1993.

- June 2, 1993 Memo summarizing meeting between DSWM and Schrader personnel to discuss the next action for contaminated wells. DSWM stated it would perform confirmation sampling. Source: Memo to file from Ronnie Bowers, DSWM, June 7, 1993.
- June 7, 1993 Memo summarizing meeting between DSWM and Schrader personnel to discuss the next action for contaminated wells. Schrader would identify and sample wells within a 2-mile radius. Bottle water would be provided to residences with contaminated wells. Source: Memo to file from Ronnie Bowers, DSWM, June 7, 1993.
- June 8, 1993 Memo stating that DSWM met with Jimmy Boren, a homeowner with a contaminated well. Mr. Boren asked questions relative to cost reimbursement for the loss of his well, dangers in bathing with contaminated water, potential health affects, and medical advice. DSWM would call with more information after discussing with U.S. EPA Region IV toxicologists. Source: Memo to file from Ronnie Bowers, DSWM, June 7, 1993.
- June 9, 1993 Memo stating that DSWM called Jimmy Boren to inform him that Schrader had committed to paying expenses and providing medical care upon request. He was also advised not to shower with the water. Source: Memo to file from Ronnie Bowers, DSWM, June 7, 1993.
- August 2, 1993 Letter from TDEC to representative for Scovill stating that wells in the 2-mile radius had been sampled and "no additional wells were found to be contaminated." Wells in the 1-mile radius were to be resampled. Source: Letter from Ronnie Bowers, DSWM to Robert Jones, Hunton and Williams, August 2, 1993.
- September 9, 1993 An Application for Authorization for Class V Underground Injection Well submitted to the DWS stating the purpose of the investigation was to "provide additional information on several unresolved issues regarding groundwater flow of (the) site." Dye receptors were proposed for seven of nine private wells contaminated with TCE. Four simultaneous tracers using three different dyes were proposed. Dyes were to be injected into four "special dye-insertion well(s) (temporary) will be installed..." The wells were identified as "Target #1 (MW-32)" and "Target 1A" near the northern disposal area, "Target #2" to the east near the former drum and tank area, "Target plant.

The proposed construction of the temporary wells consisted of the following: a 6-inch borehole advanced with a hollow stem auger, a 4-inch PVC casing and screen, and a 10-foot (0.02 slot) screen at the bottom of the borehole. A percolation test was proposed to determine if the wells had adequate hydraulic conductivities for the tracer. No on-site wells were proposed as receptors. Off-site receptors included 1 00 springs, 18 residential wells, and 39 creek locations. Source: TDEC DWS Application for Authorization for Class V Underground Injection Well, September 9, 1993.

September 1993 Consent Agreement and Order modified to expand the scope of the RFI to include off-site water supply wells (9/21/93). Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999.

November 10, 1993

Letter from DWS approving proposed dye injection with certain restrictions on waste characterization and disposal related to drilling spoils. Source: Letter to DRE Environmental Services, Inc. from Robin Bell, DWS.

February 1, 1994

Qualitative Dye Trace Study Work Plan prepared on behalf of Scovill by ICF Kaiser Engineers. The plan detailed the proposed dye trace investigation. Three injection points and dyes were proposed. The locations for the injections were based upon a natural potential (NP) survey. The NP survey indicated the presence of a "broad regional electric field characteristic of deep groundwater circulation." The study also indicated a "sink area" to the south-central portion of the site, which is near the rear of the manufacturing facility. The data indicated radial flow directions from the site. Background information in the plan stated that the "concentration of dissolved TCE is high enough to suggest that dense non-aqueous phase liquid (DNAPL) conditions may be present..." Probable TCE source areas were identified as the former TCE tank and drum storage area, the northern disposal area, and the "basins, piping, and solvent degreasers and stills beneath the building." Source: Qualitative Dye Trace Study Work Plan, ICF Kaiser, February 1, 1994.

April 18, 1994

Memo to TDEC file discussing the status of the dye trace states that no work had been performed due to EPA's technical questions and TDEC's concerns about the well circulation devices proposed for private well sample collection. Source: Memo to TDEC file by Robin Bell, April 18, 1994.

June 21, 1994

Site summary of the Glenn Erranton/Schrader site detailed the history and disposition of the former disposal area. The site was "delisted," and groundwater and water supplies potentially affected were "none" for public supplies and "unknown" for private supplies. Citizen participation was stated as "none." Source: Glenn Erranton/Schrader Site summary memo, June 21, 1994, TDEC, NEAC.

A site summary for the Ivan Lewis/Schrader site detailed history and disposition of the former disposal area. The site was "delisted" and groundwater and water supplies potentially affected were "none" for public supplies and "none" for private supplies; however, the rural area was identified as "possibly using groundwater for drinking." Citizen participation was stated as "none". Source: Ivan Lewis/Schrader Site summary memo, June 21, 1994, TDEC. NEAC.

A site summary for the James Jones/Schrader site detailed history and disposition of the former disposal area. The site was "delisted" and groundwater and water supplies potentially affected were "none" for public supplies and "none" for private supplies. Citizen participation was stated as "none". Source: Ivan Lewis/Schrader Site summary memo, June 21, 1994, TDEC, NEAC.

December 1994

Groundwater Monitoring Program reporting stating that RFI Phase II, On Site Investigation was completed including further characterization of northern disposal area and other areas, spring survey, and residential well survey (12/1/94). Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999.

May 3, 1995

TDSF Site Disposition memo to file for the James Jones/Adcock Cemetery Road/Schrader site stated that the "site remediation is complete," with a signed Record of Decision (ROD) on January 15, 1992. The memo also stated that the site was delisted in December 1991. Source: TDSF Site Disposition memo by Brenda Apple, DSF, May 3, 1995.

TDSF Site Disposition memo to file for the Ivan Lewis/Schrader site stated that the "site remediation is complete," with a signed ROD being signed on January 15, 1992, and the site delisted in December 1991. Source: TDSF Site Disposition memo by Brenda Apple, DSF, May 3, 1995.

May 4, 1995

TDSF Site Disposition memo to file for the Glenn Erranton/Schrader site stated that the "site remediation is complete," with a ROD being signed on October 9, 1991, and the site delisted in December 1991. Source: TDSF Site Disposition memo by Brenda Apple, DSF, May 4, 1995.

May 5, 1995

TDSF Site Disposition memo to file for the Charles Smith/Yellow Creek/Schrader site stated that "no further action by State Superfund at present" was required. The site was delisted on December 22, 1988. Sludge and contaminated soil were excavated and disposed of at the Chemical waste Management landfill in Emelle, Alabama, during the week of August 31, 1987. The memo stated that the site was discovered in 1985, a PA was performed in 1986, and an SI was performed in 1986. A groundwater sample was collected from one local well on October 28, 1986. Creek sediment samples were also collected. Source: TDSF Site Disposition memo by Brenda Apple, DSF, May 5, 1995.

May 23, 1995

TDSF Site Disposition memo to file for the former manufacturing facility stated that the "site has undergone closure under DSWM/RCRA oversite" and that "no further action by State Superfund at present." Source: TDSF Site Disposition memo by Brenda Apple, DSF, May 23, 1995.

The May 23, 1995, memo included an attachment from U.S. EPA that stated the following for the Scovill site: "EPA has removed your facility from EPA's computer inventory known as CERCLIS." Source: Attachment to the May 23, 1995, TDSF Site Disposition memo by Brenda Apple, August 15, 1995.

July 1996

Conditional approval of the Pre-design Groundwater Investigation and Pilot Study Work Plan (7/23/96). Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999.

Report states that the RFI Phase II, Off-site Investigation (dye-trace study) field work was completed. Also, the Draft RFI, Phase II, Off-site Qualitative Dye Trace and VOC Sampling Results, Report (7/30/96) was completed. The report also states that the Final Pre-Design Groundwater Investigation and Pilot Study work Plan (7/30/96) was prepared. Source: "Groundwater Monitoring Program Report", IT Goulp, October 26, 1999.

September 17, 1996

Environmental Indicator Memorandum completed by TDEC to "formalize an evaluation of the former Scovill-Schrader Automotive Division status in relation to...RCRIS corrective action codes" that states, by media type, the following conclusions:

- Air: Elevated soil-gas samples exist in four general areas beneath the south-central portion of the building near the former aboveground solvent storage tank and degreasing equipment. Because cracks in the flooring were repaired, the report concludes there is "no human exposures to contamination via an air route."
- Surface Water: A contaminated spring without access control is located on site. Also, a spring located 1.5 mile that supplies water to the Baptist Church Camp swimming pool had concentrations of TCE at the MCL. It was not determined if the TCE was from the Scovill site. The report concluded that it was determined that "plausible human exposures to surface water contamination are not controlled and control measures are necessary."
- Groundwater: The report stated that "groundwater is contaminated on-site and off-site, and some plausible off-site human exposures are not controlled." Furthermore, the horizontal and vertical extent of contamination has not been determined..." and groundwater "at the soil bedrock contact and in the bedrock aquifer appears to be contaminated." The report states the "facility has also initiated interim measures which will consist of a dual phase groundwater/soil vapor extraction system. The system is still under construction." The report concluded "plausible human exposures to groundwater contamination are not controlled and control measures for groundwater are necessary."
- Soils: The report states the "majority of the soil impact appears to be under the manufacturing building and immediately above the soil/bedrock contact." Remedial efforts conducted inside the building were limited to inventory and removal of waste chemicals remaining in the plant. Exterior activities have been limited to the removal of surficially-stained soils from the drum storage area, the truck scales area, and along the north wall, near the cutting oil sump. The landfill area was closed by removal. The report concluded "human exposures to contaminated soil are controlled."

The report stated "plausible human exposures are not controlled." The report discusses a dual-phase vapor extraction remediation effort, but stated that "the facility has not initiated any control measures i.e. interim corrective measures on-site to attempt to control the migration of contaminated groundwater" and that "there is a plume of contaminated groundwater that has migrated off-site (in the bedrock aquifer) that is above relevant actions levels." The report stated that "it has not been determined if the contamination in the groundwater at the soil/bedrock interface has migrated off-site." Source: Environmental Indicator Memorandum by Roger Donovan, DSWM, TDEC, to Kirk Lucious, RCRA Program Branch, Waste Management Division, September 17, 1996.

November 1997

Report stated that ICF Kaiser performed groundwater monitoring event No. 1 for on-and off-site wells. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999.

March 1998 The Draft Groundwater Monitoring Program No. 1 report for the November 1997 Semi-Annual Sampling Event (3/12/98) was completed. Monitoring Program Report", IT Group, October 26, 1999. Source: "Groundwater March 1998 An Interim Stabilization Measure (3/19/98) was requested. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. May 1998 The Schrader Automotive Facility was given conditional acceptance into the to EPA's Superfund Innovative Technology Evaluation (SITE) program on 5/8/98. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. June 1998 Report stated that groundwater monitoring event No. 2 was performed for on- and off-site locations. Report also states that the Interim Stabilization Measures Work Plan (ISMWP)-Draft (6/17/98) was submitted. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. August 1998 Report stated that verbal approval of the ISMWP was received from EPA on 8/14/98. Scovill began preparation of NPDES permit to implement the ISMWP. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. September 1998 Report stated that the final NPDES permit application was prepared and submitted (9/15/98) and that a completed preliminary draft of the off-site well installation work plan was submitted. Report also states that IT formalized off-site access agreements to install cluster wells north and east of the site. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. December 1998 Report stated that the Groundwater Monitoring Program Sampling Event No. 3 was completed for on- and off-site locations and the Revised Off-site Monitoring Wells Installation Work Plan was revised for US EPA (12/14/98). Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. January 1999 Report stated that bid packages were sent to contractors and subcontractors for implementing the ISMWP (1/22/98) and work began on installation of off-site well clusters in accordance with the Work Plan, dated 12/14/98. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. February 1999 Report stated that installation of off-site well clusters to the north and east of the Tennsso property was completed. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999. March 1999 Report stated that the draft Groundwater Monitoring Report No. 3 dated March 19, 1999, was submitted and that extraction well E1 and monitoring well MW39 were installed in accordance with ISMWP, dated 1/22/99. Monitoring Program Report", IT Group, October 26, 1999. Source: "Groundwater May 1999 Groundwater Monitoring Program Report stating that NPDES Permit was issued for outfall 001 of the groundwater treatment system on May 28, 1999. "Groundwater Monitoring Program Report", IT Group, October 26, 1999.

October 26, 1999 Groundwater Monitoring Program Sampling Event No. 4 report stated that groundwater sampling was complete for on- and off-site locations. The report also stated the ISM Operations and Maintenance budget was submitted to Saltire for approval. Source: "Groundwater Monitoring Program Report", IT Group, October 26, 1999

SUMIDEN WIRE PRODUCTS CORP. (SUMIDEN) 710 MARSHALL STUART DR. DICKSON, TN 37055

- February 20, 1996 HWN and HWSR indicated that 4,800 kg of waste solvent (mineral spirits and solvent 100) was produced annually by Sumiden. Source: TDEC DSWM HWN and HWSR, March 6, 1996.
- February 5, 1998 HWN and HWSR indicated the following wastes were generated by Sumiden: (1) waste solvent (D001) including mineral spirits and solvent 100, which was replaced with a nonhazardous solvent in 1997; (2) wastewater treatment sludge from electroplating operations (F006) including nickel, chromium, barium, and lead; (3) waste hydrochloric acid (HCl) solutions (D002), including HCl, chromium, and nickel; (4) waste sulfuric acid (H₂SO₄) solution (D002), including H₂SO₄, chromium, and nickel; (5) spent HCl electropolishing solution (D002 and K062) same components as #3; (6) Spent sulfuric acid electroplating/pickling solution (D002 and K062), same components as #4; and (7) waste nickel-plating bath solution (D002, and HWSR, March 3, 1998.

TEKSID ALUMINUM FOUNDRY, INC. (TEKSID) RT 7 BOX 319 COLESBURG RD DICKSON, TN 37055

- July 17, 1989

 Letter from Teksid to DSWM requested a generator EPA I.D. number for the new facility in Dickson. Letter indicates that HWN and HWSR are attached; however these documents were not included with the letter. Source: Letter from L.C. McKee, Purchasing Director, Teksid Aluminum Foundry, Inc., to Tom Tiesler, Director, July 17, 1989.
- March 28, 1991 HWN and HWSR list generated wastes as sulfuric acid (D002) and discarded chemical products, which are shipped off site. Source: TDHE DSWM HWN and HWSR, March 28, 1991.
- August 28, 1991 Record of a telephone conversation between Luke Ewing, Division of Water Supply, and Jerry Pence concerning the groundwater quality at the Mr. Pence's water well. Luke Ewing collected a groundwater sample from the well using a bailer. Mr. Ewing noted 2 to 6 inches of yellow-orange product in bailer. Results from laboratory analysis of the sample indicated 652,000 ppb of TPH extractables. Source: Luke Ewing of Division of Water Supply, telephone record August 28, 1991.

November 20, 1991

TDHE office correspondence relayed an investigation conducted by the Division of Underground Storage Tanks (UST) to locate the source of the contamination found in a drinking water well on a private residence (Pence) in Dickson County. The private residence is located within ½ mile of the Dickson Industrial Park, where Teksid is located. The correspondence states that during the investigation, an acquaintance of Pence observed an employee from Teksid pouring a liquid out of a drum behind the Teksid facility. The Division of USTs visited the facility and sampled the area of disposed liquid, analyzed the sample, and compared analytical results to results from water well samples. Findings from the analysis indicated a potential match between the Teksid sample and the water well sample. The memo recommended further investigation of the Teksid facility. Source: TDHE Office Correspondence from Chuck Head to Ken Bunting, November 20, 1991.

July 28, 1992

Letter from DSWM to Teksid stated unauthorized disposal of foundry sands behind the plant had occurred, which violates TCA 68-31-106 of the Solid Waste Act. The letter requires a "plan of action" to bring the facility into compliance. Source: Letter from Doye Rowland Manager, Nashville Field Office, TDEC DSWM, to Giuseppe Allievi, Teksid Aluminum Foundry, Inc., July 28, 1992.

August 27, 1992

Letter and waste manifest from Combs Industrial Services, which discussed the disposal of the 44 drums of waste material from Teksid that Combs Industrial Services transported from the site. The letter noted that 44 drums of waste material were then transported to a Class B facility in Wyandotte, Michigan, on August 25, 1992. The waste manifest listed the components within the waste material resin as ammonium nitrate, bis(2-ethylhexyl)phthalate, formaldehyde, phenol, naphthalene, and methylene BIS. Source: Letter from Combs Industrial Services, Inc. to Teksid Aluminum Foundry, Inc., August 27, 1992.

"Late" 1992

DSWM Enforcement Action Request (EAR) memo summarized site visits and violations at Teksid. During the site visits, Teksid had 46 drums of unknown waste (six were later verified through analytical testing as containing hazardous waste) and a large pile of waste foundry sand that was determined to be nonhazardous. Two violations of sections of Tennessee Code Annotated, Chapter 46 "Tennessee Hazardous Waste Management Act" and 11 rules of Tennessee's Hazardous Waste Regulations were observed. Source: EAR Memo, Teksid Aluminum Foundry, TND 98-212-4273, by Tom Yates, Environmental Specialist, TDEC DSWM.

December 22, 1992

Letter from DSWM with attached inspection report confirming observations and recommendations made during an inspection conducted on December 14, 1992. The report stated that the only hazardous waste generated during operation was waste sulfuric acid, but 27 violations of the hazardous waste regulations were noted. The letter stated that corrections to violations should occur no later than Jan. 18, 1993. Source: Letter from Tom Yates, TDEC DSWM, to David Rotkiewicz, Teksid Aluminum Foundry, Inc., December 22, 1992.

January 1993

Partial copy of draft site assessment/investigation comprised of a site location map and a table of analytical results for the waste stream analyses for total lead (Pb) and TCLP Pb. The table did not indicate the concentration units. Source: Teksid Aluminum Foundry, Inc. Site Assessment/Investigation, Dickson, Tenness ee prepared for Waller Lansden Dortch & Davis, Nashville, TN, prepared by Resource Consultants, Inc., Brentwood, TN, January 1993.

March 17, 1993

Letter from Teksid to DSWM discussed the evaluation of waste streams conducted by Resource Consultants, Inc. (RCI). RCI determined that Teksid generated 10 waste streams: only the parts cleaner waste stream was considered hazardous under RCRA regulation 40 CFR 261. The parts cleaner waste was determined to be a D001 RCRA ignitable waste. Additionally, RCI evaluated the results of a previous investigation that included sampling and characterization of materials from 46 drums. This evaluation stated that 17 of the 46 drums were sampled, and 6 were determined to contain hazardous waste. Source: Letter from David Rotkiewicz, Director of Engineering and Maintenance, Teksid to Tom Tiesler, Director, TDEC DSWM, March 17, 1993.

May 18, 1993

Letter from DSWM to Teksid summarized inspection results and facility violations, leading to a penalty of \$22,750.00. Source: Letter from TDEC DSWM to Teksid Aluminum Foundry, Inc., May 18, 1993.

July 5, 1994

Letter from DSWM to Teksid confirming the observations made during an inspection conducted on June 27, 1994. A copy of the inspection report was attached to the letter. The inspection report stated that during this reporting period, Teksid became an LQG. The nonhazardous sand waste was used by a contractor for road construction and processed in an on-site recovery/reuse system. The inspection noted a deficiency in manifest recordkeeping, resulting in a violation of Rule 1200-1-11-.03(5) (a)1. The letter noted that the violation should be corrected no later than July 28, 1994. Source: Letter from Tom Yates, TDEC DSWM, to Don Pfeiffer, Teksid Aluminum Foundry, Inc., July 5, 1995.

March 3, 1995

Letter from DSWM to Teksid stating that the current Consent Order amends and supersedes the previous Order of Assessment of Civil Penalty, which was issued on October 20, 1994. The letter indicates that Teksid paid the civil penalty and that this correspondence represents closure of the enforcement case. Source: Letter from Tom Tiesler, Director, TDEC DSWM, to Donald Pfeiffer, Manager of Environmental Affairs, Teksid Aluminum Foundry, Inc., March 3, 1995.

February 9, 1996

HWN and HWSR noted that the manager of the plant was Paolo Maccario, the technical contact was Donald Pfieffer, there were 550 employees, plant operations began in 1987, the emergency contact was Donald Pfieffer. Three HWSRs were attached stating the following wastes streams: waste flammable liquid, waste combustible liquid, and oil/water. Source: TDEC DSWM HWN, February 9, 1996.

March 11, 1996

RCRA Inspection Report by DSWM noted four hazardous waste streams were generated during manufacturing processes. These waste streams included: (1) sulfuric acid; (2) waste solvent; (3) waste HCl; and (4) waste paint thinner. The report indicated that waste cutting oil that contained lead was no longer generated at the facility as of March 8, 1995. A 6,000-gallon AST with secondary containment is located on site to hold other waste oil. This oil is transferred to 55-gallon dmrns prior to shipment, and about 50 drums per year are generated. Annual report data reviewed during the inspection showed that 1,000 kg of hazardous waste was generated each month in 1995, and a special waste approval was granted for waste sand and oil dry materials. No violations were found during the inspection. Source: DSWM RCRA Inspection Report by Tom Yates, March 11, 1996.

TENNESSEE SEWING MACHINE ATTACHMENT CO., INC. 4600 HWY 70 WHITE BLUFF, TN 37187

February 27, 1998 HWN and HWSR stated hazardous waste potassium cyanide (P098 and D003) was generated at the facility until February 19, 1998. Source: TDEC DSWM HWN and HWSR, February 27, 1998.

March 9, 1998 Letter from DSWM to Tennessee Sewing issuing the site EPA ID Number of TNR 00-000-5991. Source: Letter from Bobby Morrison, Manager, Waste Activity Audit, TDEC DSWM, to Kerry Gooch, Tennessee Sewing Machine Attachment Co., Inc., March 9, 1998.

PRINTWOOD PLACE PRINTWOOD PLACE DICKSON, TN 37055

July 16, 1986 DSWM report stated that Printwood Place had been purchased by Tennsco. Source: TDHE DSWM CMEAR by David Wall, July 16, 1986.

TENNSCO CORPORATION PLANT 1 402 E. BROAD DICKSON, TN 37055

February 28, 1985 Inspection report for Plant 1 stated one hazardous waste was generated at the facility. The waste was described as flammable liquid (D001), which consisted of "bad paint, and paint solvent." The waste accumulated in 55-gallon drums and was pumped into a transport tanker. Nonhazardous waste paint sludge was generated and sent to a secure landfill for disposal because it could not be handled by the "local sanitary landfill." The inspection report noted that two Tennsco facilities (within 2 miles of each other in Dickson, TN) were operating and generating similar waste; however, waste from both facilities was inappropriately manifested under one EPA ID number. DSWM requested that the second facility submit a generator notification to TDHE DSWM to obtain a unique EPA ID number. Additionally, 32 violations were noted at Plant 1 related to inappropriate training documentation for facility personnel, documentation of records, and emergency contingency planning. Source: Hazardous Waste Facility Inspection by Bob Gardner, TDHE DSWM, February 28, 1985.

Hazardous Waste Facility Description (HWFD) report noted the following August 12, 1985

- Facility owner was Lester D. Speyer
- Facility manager was Jerry Estes
- Technical contact was Mickey B. Self or Stuart Speyer
- Facility had 204 employees
- Facility operations began in 1963
- Emergency contacts were Jerry Estes, Kerry Dysinger, Richard Manley, and

The Hazardous Waste Description (HWD) form attached stated the "flammable liquids" were generated at the site. The "flammable liquid" consisted of "bad paint and paint thinner mixed for paint equipment clean-up and paint sludge from water wash booths." Source: TDEC DSWM HWFD and HWD, August 12, 1985.

August 12, 1985

Remedial Action Fee (Superfund) Worksheet for Plant I stated that the total amount of hazardous waste generated during 1984 was 110,054 kg. The fee for this amount of hazardous waste was \$4,000.00. Source: TDHE DSWM Remedial Action Fee (Superfund) Worksheet.

July 2, 1986

Letter from DSWM to Tennsco summarized notice of violations at the plant and indicated the majority of violations were related to inappropriate labeling of containers and documentation of training, hazardous waste management, inspections, and emergency contingency plans. The letter indicates that a follow-up inspection will be conducted to determine actions taken to correct violations. Also noted in the letter was that the HWD, submitted on March 27, 1985, logged the incorrect amount of hazardous waste generated at the facility based on the amount manifested for the year. Source: Letter from Bob Vaughn, TDHE DSWM, to Mickey Self, Tennsco Corp., July 2, 1986.

January 16, 1987

HWN noted the same facility management and emergency contact information as HWFD submitted in 1986. The HWSD attached stated the flush solvent was generated at the site. The flush solvent consisted of 75 percent toluene and 25 percent MIBK and was used to flush and clean paint equipment. Scrap paint also was collected with the flush solvent. Source: TDEC DSWM HWN and HWSD, January 16, 1987.

January 28, 1987

HWN summary and HWSR indicated the waste stream generated at the facility is a flush solvent (F005) (composed of toluene and methyl isobutyle ketone) and the nonhazardous paint sludge. Source: TDHE DSWM HWN Summary and HWSR, January 28, 1987.

September 17, 1987

Office Correspondence from DSWM, with subject of "Tennsco Corp., Dickson Co., Variance for Plant I and II." Correspondence summarizes inspection of Plant I by Tom Yates of DSWM, conducted on September 11, 1987, to view the solvent recovery operation that recovers 2 gallons of solvent from one drum of solvent waste. Tennsco requested a "special waste" classification for the still bottoms. The correspondence indicated that the distillation unit for Plant 2 was not installed. Source: TDHE Office Correspondence from Tom Yates to TDHE DSWM file, September 17, 1987.

October 9, 1987

Public Notice issued by TDHE stating the tentative decision to grant Tennsco (Plant I) a variance from classification as a waste for spent flush solvent generated at the plant. Source: TDHE Public Notice, October 9, 1987.

May 30, 1995

Letter from DSWM to Tennsco stated that their "variance from classification as a waste" had expired. Tennsco was required to report the waste stream in the Amual Report for 1995, if the facility is still the generated the waste. Source: Letter from Dennis Woodson, Environmental Specialist, Waste Activity Audit, TDEC DSVIM, to Mickey Self, Tennsco Corporation (Plant I), May 30, 1995.

June 6, 1995

HWSR stated 20,700 kg of flush solvent (D001), composed of toluene and methyl isobutyl ketone, was no longer generated at the facility after June 10, 1992. Source: TDEC DSWM HWSR, June 6, 1995.

TENNSCO CORPORATION PLANTS 2 AND 3 FIRST AND PICKETT ST. DICKSON, TN 37055

April 12, 1985

Hazardous Waste Facility Inspection (HWFI) report for Plant 2 (located within the former Winner Boat facility) documented routine full inspection of Plant I. HWFI indicate the Plant 2 generates similar wastes as Plant 1 (see above). states that at the time of the inspection, 80 to 90 drums were located on site and were to be shipped to N&M Chemical. Additionally, 29 violations were noted at Plant 2, primarily related to inappropriate training documentation for facility personnel, general records, and contingency planning for emergency situations. Hazardous Waste Facility Inspection by Bob Gardner, TDHE DSWM, April 12, 1985.

October 12, 1987

Public Notice issued by TDHE stating the tentative decision to grant Tennsco (Plant 2) a variance from classification as a waste for spent flush solvent generated at the plant. Source: TDHE Public Notice, October 12, 1987.

December 8, 1987 DSWM Inspection Report indicated Tennsco Plants 2 and 3 generated similar solvent waste (D001). The report stated that "Tennesco has a variance for the recovery of the solvent of this waste." No violations were noted during the inspection. Source: Inspection Report by Tom Golden, TDHE DSWM, December 8, 1987.

February 19, 1988

Apparent HWN, with attached HWSR and 1987 Annual Shipping Report for Hazardous Waste Generators (ASRHWG), stated 29,500 kg of flush solvent are produced annually, and under EPA waste code D001 7,131 kg of flush solvent was shipped from the site in one shipment. Source: TDHE DSWM HWN, HWSR, and 1987 Annual Shipping Report for Hazardous Waste Generators, February 19, 1988.

February 23, 1989

HWN Summary and HWSR stated a variance was granted to Tennesco in October 1987 for the flammable liquid solvent (spent flush solvent) generated at Plants II and III since the solvent is recovered. DSWM Nashville Field Office granted the still bottoms generated from the on-site solvent recovery system special waste approval in March 1987. 1988 ASRHWG stated that no hazardous waste shipment were made in Source: TDHE DSWM HWN Summary, HWSR, and 1988 ASRHWG, February 23, 1989.

December 20. 1990

HWN and HWSR stated the facility has air permits for coating application and a National Pollutant Discharge Elimination System (NPDES) permit for city wastewater discharge. The HWSR indicated a one-time generation of 12,750 kg of "waste/scrap paint-liquid" and 8,273 kg of "waste paint-solid" in order to "dispose of paint raw materials due to a process shutdown using (these materials)." Source: TDHE DSWM HWN and HWSR, December 20, 1990.

- December 2, 1992
- DSWM letter to Tennsco, concerning a "drum dumpsite" on Tennsco property (behind former Winner Boat Plant). DSWM inspected the drum site on Dec. 1, 1992, and observed discolored soil and deteriorated barrels, several contained a hardened resin. DSWM recommended the following for the remediation process: (1) waste removal and segregation according to waste type, (2) sampling of each waste type to determine hazard level; (3) verification soil sampling from the bottom the cells to assure proper closure after waste is removed from the cells, and (4) TCLP analysis, as well as "total analysis," if soil discoloration is noted after waste removal. Source: Letter from Wayne Harbin, TDEC DSWM, to Mickey Self, Tennsco Corporation, December 2, 1992.
- February 17, 1994 HWSR received from Tennsco stating that flammable liquid (spent flush solvent) is no longer generated at the plant. It has not been generated at the plant since Jan. 4, 1993. Source: TDEC DSWM HWSR, February 17, 1994.
- February 7, 1995 HWSR stated liquid paint, which is "high" in solids and generates a hazardous liquid waste paint, would be replaced by a "powder coating" by the fall of 1995. The offsite shipping record showed that 207,272 kg of liquid waste and solid waste paint were transported off site by a TSDF in 1994. Source: TDEC DSWM HWSR and 1994 Offsite Shipping Record, February 7, 1995.
- February 6, 1996 HWN and HWSR stated that liquid waste paint was generated at the site at an annual average of 70,000 kg. Source: TDEC DSWM HWN and HWSR, February 6, 1996.
- February 12, 1996 RCRA Inspection Report stated that Tennsco originally operated under the name "Diebold Company" and began operating in 1958. In 1962, Diebold sold the company to Tennsco, which is comprised of six separate facilities in Dickson. Tennsco generated over 1,000 kg of hazardous waste per month for 12 months in 1994, indicating the facility was an LQG. Additionally, five violations were noted during the inspection, including a "high priority violation" due to improperly marking, labeling, and dating on-site drums as hazardous waste. Source: TDEC DSWM RCRA Inspection Report by Tom Yates, February 12, 1996.
- Memo summarizing a "show cause meeting" conducted on May 23, 1996, in relation to the above violations. As a result of the hearing, the facility was charged with violating the following rules: 1200-1-11-.03(4)(e)2 (not appropriately labeling hazardous waste), 1200-1-11-.03(4)(e)2(i)(I), 1200-1-11-.05(9)(a), 1200-1-11-.05(3)(a). The facility was penalized \$1,000 and was ordered to fully comply with the act and Division regulations in the future. Source: TDEC DSWM, In the matter of Temsco Corp, SWM Case No. 96-H0023.
- January 27, 1997 Hazardous waste case profile report sheet showing a fine of \$1000 was received and the case was closed. Source: State of Tennessee Hazardous Waste Case Profile Report, January 27, 1997.
- January 30, 1998 HWN and HWSR indicating that liquid waste paint, in liquid and solid forms, was generated at the plant. Reports also indicated that "waste phosphoric acid solution" and "waste caustic solution" were also generated. The "waste caustic solution" was sodium hydroxide. Source: TDEC DSWM HWN and HWSR, January 30, 1998.

January 13, 1999

DSWM letter to Tennsco with an inspection report attached. The hazardous waste inspection was conducted on January 6, 1999, and noted four violations, primarily involving inappropriate labeling of hazardous wastes and lack of training documentation for employees. The letter confirmed these observations and stated that corrective action should take place immediately, with a follow-up inspection to occur on Feb. 8, 1999. Source: Letter from Tom Yates, TDEC DSWM, to Rocky Bowker, Environmental Coordinator, Tennsco, January 13, 1999.

WABASH ALLOYS R.R. 8 SOUTH PRINTWOOD DR DICKSON, TN 37055

February 26, 1990 HWN and HWSR showed that dust from the furnace baghouse was considered hazardous waste. The dust was being produced at an annual average of 33,000 kg. The waste was being generated from the "baghouse type dust collector" from units 2 and 3 of the secondary aluminum gas-fired reverberatory furnaces. Source: TDHE DSWM HWN and HWSR, February 26, 1990.

March 9, 1994

HWSR showed that dust from the furnace baghouse was no longer generated at the facility after May 15, 1993. The dust was being produced at an annual average of 12,356 kg. The waste was being generated from the "baghouse type dust collector" from units 2, 3, 4, and 6 of the secondary aluminum gas-fired reverberatory furnaces. The major hazardous constituent of the dust from the baghouse was cadmium. Source: TDEC DSWM HWN, March 9, 1994.

WASHLAND CUSTOM CLEANERS

ADDRESS NOT AVAILABLE

February 28, 1989 Apparent HWN with attached HWSR stated waste PCE bottoms and waste filters were generated at the facility and transported off site by Safety-Kleen, a TSDF. Source: TDHE DSWM HWN and HWSR, February 28, 1989.